Eureka Math *A Story of Units*
Fourth Grade – Module 7

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Materials based on Eureka Math Version 3.

Module Assessment Overview

Purpose of Assessments

Mid-Module Assessment: These tasks address approximately the **first half** of the module's learning objectives, and provide important information for instruction and for grading.

End-of-Module Assessment: These tasks are based on all standards addressed in order to gauge students' full range of understanding of the **module as a whole**. The End-of-Module assessment should carry more weight than the Mid-Module Assessment in terms of student grades in the appropriate domain.

Administration of Assessments

- Mid- and End-of-Module Assessments are designed to be completed in approximately one class period. However, The tests can be given over multiple days as needed.
- Assessments are designed to be completed independently by students, without assistance.
- These tasks should not be preceded by review of similar problems.

Grading Guidance

The grading scale on Elementary Report Cards has been changed for 2015-2016 and beyond. Please note that ***4 now indicates advanced understanding of grade level standards expected at this time of year.***

4 – Advanced: Student demonstrates advanced understanding of grade level standards expected at this time of year.
3 – Proficient: Student demonstrates proficiency with grade level standards expected at this time of year.
2 – Basic: Student demonstrates basic understanding of grade level standards expected at this time of year. Student needs additional support and practice.
1 – Below Basic: Student demonstrates minimal understanding of grade level standards expected at this time of year. Student needs significant support and practice.

Rubrics have been updated to reflect this change. Rubrics have been further modified from Eureka Math originals for clarity, accuracy, and alignment to Bethel's grade scale.

General Grading Guidance:

- On the report card, student learning is reported by CCSS domain. The Fourth Grade CCSS domains are: Operations and Algebraic Thinking, Number and Operations in Base Ten, Number and Operations – Fractions, Measurement and Data, and Geometry.
- Grades in each domain should be based on multiple sources of evidence, including the Mid- and End-of-Module Assessments. The End-of-Module assessment should carry more weight than the Mid-Module Assessment in terms of student grades in the appropriate domain.

Module 7 Grading Guidance:

- The standards taught and assessed in Module 7 are last assessed in this module (See checklist on page 3.)

Updates

We recommend examining the End-of-Module Assessment as the Module is being planned. This allows for better alignment between lessons and the assessment.

Grade 4 Common Core State Standards Checklist by Module

This grade-level chart provides an at-a-glance view of when each standard is addressed. **Shaded boxes indicate standards assessed in Module 7.** *Note that standards included in major clusters are followed by an asterisk (*).* Please refer to the Curriculum Overview of *A Story of Units* for a curriculum map and detailed grade-level descriptions including a summary of the year, a rationale of the module sequence, and a standards alignment chart.

CCSS		GRADE 4 MODULES						
		1	2	3	4	5	6	7
4.OA	1*			X				X
	2*			X				X
	3*	X		X				X
	4			X				
	5					X		
4.NBT	1*	X						
	2*	X						
	3*	X						
	4*	X						
	5*			X				X
	6*			X				
4.NF	1*					X		
	2*					X		
	3a*					X		
	3b*					X		
	3c*					X		
	3d*					X		
	4a*					X		
	4b*					X		
	4c*					X		
	5*						X	
	6*						X	
	7*						X	
4.MD	1		X					X
	2		X			X	X	X
	3			X				
	4					X		
	5a				X			
	5b				X			
	6				X			
	7				X			
4.G	1				X			
	2				X			
	3				X			

Grade 4 Module 7 End-of-Module Assessment Task Score Sheet

A Progression of Learning

A Progression of Learning is provided to describe steps that illuminate the gradually increasing understandings that students develop *on their way to proficiency.* In this chart, this progress is presented from left to right. The learning goal for each student is to move to the last step, "Evidence of solid reasoning with a correct answer". These steps are meant to help teachers and students identify and celebrate what the student CAN do now, and what they need to work on next.

Score Key: A Progression of Learning			
Little or no evidence of reasoning with an incorrect answer. (1 Point)	Evidence of some reasoning with an incorrect answer. (2 Points)	Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer. (3 Points)	Evidence of solid reasoning with a correct answer. (4 Points)

	Module 7: End-of-Module Assessment							
	Domain		**Standards**					
Question	Operations and Algebraic Thinking	Measurement and Data	4.OA.1	4.OA.2	4.OA.3	4.MD.1	4.MD.2
1	1 2 3 4	1 2 3 4	X			X	
2	1 2 3 4	1 2 3 4	X			X	
3		1 2 3 4				X	
4		1 2 3 4				X	
5		1 2 3 4				X	X
6	1 2 3 4	1 2 3 4	X	X	X	X	X

Domain Score	Operations and Algebraic Thinking		Measurement and Data	
Total Points				
Level	4	11-12 pts.	4	21-24 pts.
	3	8-10 pts.	3	15-20 pts.
	2	5-7 pts.	2	9-14 pts.
	1	3-4 pts.	1	6-8 pts.

Note: For more information about standards assessed in this module, see back of this score sheet.

Notes:

Grade 4 Module 7 End-of-Module Assessment Task Score Sheet (continued)

End-of-Module Assessment Task (Topics A–C) Clusters and Standards Addressed	
Use the four operations with whole numbers to solve problems.	
4.OA.1	Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
4.OA.2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. (See CCSS Glossary, Table 2.)
4.OA.3	Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	
4.MD.1	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft is 12 times as long as 1 in. Express length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), …*
4.MD.2	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Grade 4 Module 7 End-of-Module Assessment Task Rubric

A Progression of Learning				
Assessment Task Item and Standards Assessed	**STEP 1** **Little or no evidence of reasoning with an incorrect answer.** **(1 Point)**	**STEP 2** **Evidence of some reasoning with an incorrect answer.** **(2 Points)**	**STEP 3** **Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer.** **(3 Points)**	**STEP 4** **Evidence of solid reasoning with a correct answer.** **(4 Points)**
1 **4.OA.1** **4.MD.1** **Use this rubric to double score #1. (Enter the same score in OA and MD.)**	The student correctly answers **0-1** of the four parts.	The student correctly answers **2** of the four parts.	The student correctly answers **3** of the four parts.	The student correctly answers **4** of the four parts. (See below.)
	a. **(1)** 4 qt. **(2)** tape diagram b. **(3)** 7 qt. **(4)** tape diagram			
2 **4.OA.1** **4.MD.1** **Use this rubric to double score #2. (Enter the same score in OA and MD.)**	The student correctly answers **0-1** of the four parts.	The student correctly answers **2** of the four parts.	The student correctly answers **3** of the four parts.	The student correctly answers **4** of the four parts. (See below.)
	a. **(1)** 16, 32, 96, 160, and 208 ounces; **(2)** identifies an accurate rule, such as *multiply by 16*. b. **(3)** 60,180,420,600, and 840 minutes; **(4)** identifies an accurate rule, such as *multiply by 60*.			
3 **4.MD.1**	The student correctly answers **0-1** of the six parts.	The student correctly answers **2-3** of the six parts.	The student correctly answers **4-5** of the six parts.	The student correctly answers **6** of the six parts. (See below.)
	a. **(1)** False. **(2)** Explains using pictures, numbers, or words b. **(3)** False. **(4)** Explains using pictures, numbers, or words c. **(5)** True. **(6)** Explains using pictures, numbers, or words			
4 **4.MD.1**	The student correctly answers **0-1** of the five parts.	The student correctly answers **2-3** of the five parts.	The student correctly answers **4** of the five parts.	The student correctly answers **5** of the five parts. (See below.)
	a. **(1)** 9,000 meters b. **(2)** 3,240 milliliters c. **(3)** 41 inches d. **(4)** 135 minutes e. **(5)** 390 ounces			

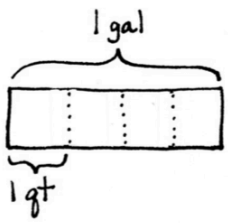
Grade 4 Module 7 End-of-Module Assessment Task Rubric (continued)

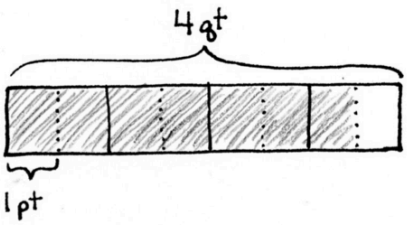
A Progression of Learning				
Assessment Task Item and Standards Assessed	**STEP 1** **Little or no evidence of reasoning with an incorrect answer.** **(1 Point)**	**STEP 2** **Evidence of some reasoning with an incorrect answer.** **(2 Points)**	**STEP 3** **Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer.** **(3 Points)**	**STEP 4** **Evidence of solid reasoning with a correct answer.** **(4 Points)**
5 **4.MD.1** **4.MD.2**	The student correctly answers **0-3** of the eight parts.	The student correctly answers **4-5** of the eight parts.	The student correctly answers **6-7** of the eight parts.	The student correctly answers **8** of the eight parts. (See below.)
	a. **(1)** 10 gal 1 qt. **(2)** Shows work. b. **(3)** 5 ft. 5 in. **(4)** Shows work. c. **(5)** 11 min 20 sec. **(6)** Shows work. d. **(7)** 20 lb. 14 oz. **(8)** Shows work.			
6 **4.OA.1** **4.OA.2** **4.OA.3** **4.MD.1** **4.MD.2** **Use this rubric to double score #6. (Enter the same score in OA and MD.)**	The student correctly answers **0-2** of the seven parts.	The student correctly answers **3-4** of the seven parts.	The student correctly answers **5-6** of the seven parts.	The student correctly answers **7** of the seven parts. (See below.)
	a. **(1)** Completes the table: 36, 72, 108, 144, 180, 360 inches. b. **(2)** Describes the rule, such as *multiply the number of yards times 36*. c. **(3)** Solves for 540 inches in 15 yards. d. **(4)** Answers *yes*, and **(5)** provides an accurate explanation such as *15 yards is 3 times as much as 5 yards, so 3 × 180 inches = 540 inches*. e. **(6)** Answers *14 feet 7 inches* **(7)** using RDW.			

Grade 4 Module 7 End-of-Module Assessment Task Key

Name Jack Date

1. Solve for the following conversions. Draw tape diagrams to model the equivalency.
   a. 1 gal = 4 qt
   b. 3 qt 1pt = 7 pt





2. Complete the following tables:

a.

Pounds	Ounces
1	16
2	32
6	96
10	160
13	208

The rule for converting pounds to ounces is multiply pounds times 16.

b.

Hours	Minutes
1	60
3	180
7	420
10	600
14	840

The rule for converting hours to minutes is multiply hours times 60.

3. Answer true or false for the following statements. Explain how you know using pictures, numbers or words.

a. 68 ounces < 4 pounds — false
1 pound = 16 ounces
4 pounds = 64 ounces
68 oz > 64 oz

b. 920 minutes > 17 hours — false
1 hour = 60 minutes
17 hours = 1,020 minutes
920 min < 1,020 min

c. 38 inches = 3 feet 2 inches — true
1 foot = 12 inches
3 feet = 36 inches
36 in + 2 in = 38 in
38 in = 38 in

Grade 4 Module 7 End-of-Module Assessment Task Key (continued)

4. Convert the following measurements.
   a. Express the length of a 9 kilometer trip in meters. 9,000 meters
   b. Express the capacity of a 3 liter 240 milliliter container in milliliters. 3,240 mL
   c. Express the length of a 3 foot 5 inch fish in inches. 41 inches
   d. Express the length of a $2\frac{1}{4}$ hour movie in minutes. 135 minutes
   e. Express the weight of a $24\frac{3}{8}$ pound wolverine in ounces. 390 ounces

5. Find the following sums and differences. Show your work.
   a. 4 gal 2 qt + 5 gal 3 qt = 10 gal 1 qt
      1gf 1gt
   b. 6 ft 2 in − 9 inches = 5 ft 5 in
      5ft 14in
   c. 3 min 34 sec + 7 min 46 sec = 11 min 20 sec
      20sec 14sec
   d. 24 lb 9 oz − 3 lb 11 oz = 20 lb 14 oz
      23lb 25oz

Grade 4 Module 7 End-of-Module Assessment Task Key (continued)

6.

a. Complete the table.

Yards	Inches
1	36
2	72
3	108
4	144
5	180
10	360

b. Describe the rule for converting yards to inches.

Multiply the number of yards times 36.

c. How many inches are in 15 yards?

5 yd = 180 in
10 yd = 360 in

180 in + 360 in = 540 in

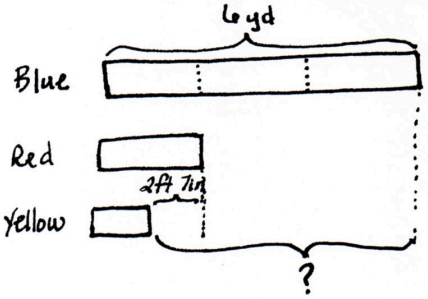
There are 540 inches in 15 yards.

d. Jacob says that he can find the number of inches in 15 yards by tripling the number of inches in 5 yards. Does his strategy work? Why or why not?

Yes, 15 yards can be found multiplying 5 yards x 3, so you can multiply the number of inches in 5 yards by 3.

5 x 36 in = 180 in 180 in x 3 = 540 in

e. A blue rope in Jacob's camping backpack is 6 yards long. The blue rope is 3 times as long as a red rope. A yellow rope is 2 feet 7 inches shorter than the red rope. What is the difference in length between the blue rope and the yellow rope?



Red: 2yd = 6ft

6ft - 2ft 7in = 3ft 5in

5ft 12in

Blue: 6yd = 18 ft

18ft - 3ft 5in = 14 ft 7 in

17ft 12in

The difference in length between the blue rope and the yellow rope is 14 feet 9 inches.